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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/779,754	02/08/2001	Jeffrey E. Stahmann	279.380US1	5548

7590 04/15/2003
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EXAMINER

RAMANA, ANURADHA

ART UNIT	PAPER NUMBER
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3732

DATE MAILED: 04/15/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/779,754

Applicant(s)

STAHMANN ET AL.

Examiner

Anu Ramana

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 1/16/03.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 41-70 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 41-70 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☒ The proposed drawing correction filed on 16 January 2003 is: a) ☒ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☒ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 10. 6) ☐ Other:

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DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

Claims 63 and 66 rejected under 35 U.S.C. 102(a) as being anticipated by Struble et al. (US 6,081,748).

Struble et al. disclose synchronous pacing of the two lower heart chambers (right and left ventricles) utilizing pacing/sensing electrodes (col. 1, lines 19-25 and col. 6, lines 14-58). The claimed method steps are inherently performed during synchronous pacing of right and left ventricles.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 57 is rejected under 35 U.S.C. 103(a) as being unpatentable over Alt et al. (US 6,370,427).

Alt et al. disclose a method of pacing a heart with a first electrode 73 in a left ventricular region of the heart and a second electrode 64 in the right atrial region of the heart (col. 10, lines 8-17 and lines 54-57).

Although Alt et al. do not disclose a first pacing pulse between the first electrode 73 and second electrode 64, it would have been an obvious matter of design choice to have delivered a first pacing pulse between the first electrode 73 and second electrode 64, since applicant has not

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disclosed that the claimed method steps solves any particular problem and it appears that the invention would perform equally well with the method steps disclosed by Alt et al.

Claims 41-42, 44-45, 47 and 58-60 are rejected under 35 U.S.C. 103(a) as being unpatentable over Alt et al., further in view of Josep (US 4,248,238).

Alt et al. disclose a method of pacing a heart with a first electrode 73 in a left ventricular region of the heart and a second electrode 64 in the right atrial region of the heart (col. 10, lines 8-17 and lines 54-57).

Alt et al. do not disclose a third electrode in the left ventricular region.

Joseph teaches connection of a pacemaker by two electrodes to the same part of the heart, namely two ventricular electrodes where in the event of failure of one electrode, the second could be used without surgical intervention (col. 4, lines 60-68 and col. 5, lines 1-18).

Accordingly it would have been obvious to one of ordinary skill in the art at the time of the invention to provide a second left ventricular electrode in the method of Alt et al. so that in the event of failure of the first left ventricular electrode, the second left ventricular electrode can be used as a backup, as taught by Joseph.

The claimed method steps are rendered obvious by the disclosure of Alt et al. and Joseph since applicant has not disclosed that the sequence of steps solves any particular problem and it appears that the invention would perform equally well with the method of the combination of Alt et al. and Joseph.

Claims 43 and 46 are rejected under 35 U.S.C. 103(a) as being unpatentable over Alt et al. in view of Joseph, as applied to claim 41, further in view of Callaghan et al. (US 4,858,610).

Alt et al. do not disclose a pacing pulse between the first left ventricular electrode, the second left ventricular electrode and the conductive housing of an implantable pulse generator.

Callaghan et al. teach the use of the conductive housing of an implantable pulse generator as a reference electrode during the electrical stimulus emitting and evoked response sensing phases (col. 2, lines 34-59).

Accordingly it would have been obvious to one of ordinary skill in the art at the time of the invention to provide the conductive housing of an implantable pulse generator as a reference

electrode in the method of the combination of Alt et al. and Joseph for synchronous pacing of the right and left ventricles during the electrical stimulus emitting and evoked response sensing phases, as taught by Callaghan et al.

Claims 48, 49, 54, 64 and 65 are rejected under 35 U.S.C. 103(a) as being unpatentable over Struble et al. in view of Joseph.

Struble et al. disclose synchronous pacing of the two lower heart chambers (right and left ventricles) utilizing pacing/sensing electrodes (col. 1, lines 19-25 and col. 6, lines 14-58).

Struble et al. do not disclose a first left ventricular electrode and a second left ventricular electrode.

Joseph teaches connection of a pacemaker by two electrodes to the same part of the heart, namely two ventricular electrodes where in the event of failure of one electrode, the second could be used without surgical intervention (col. 4, lines 60-68 and col. 5, lines 1-18).

Accordingly it would have been obvious to one of ordinary skill in the art at the time of the invention to provide a second left ventricular electrode in the method of Struble et al. so that in the event of failure of the first left ventricular electrode, the second left ventricular electrode can be used as a backup, as taught by Joseph.

Claim 50 is rejected under 35 U.S.C. 103(a) as being unpatentable over Struble et al. in view of Joseph, as applied to claim 48, further in view of Callaghan et al. (US 4,858,610).

Struble et al. do not disclose a pacing pulse between the first left ventricular electrode, the second left ventricular electrode and the conductive housing of an implantable pulse generator.

Callaghan et al. teach the use of the conductive housing of an implantable pulse generator as a reference electrode during the electrical stimulus emitting and evoked response sensing phases (col. 2, lines 34-59).

Accordingly it would have been obvious to one of ordinary skill in the art at the time of the invention to provide the conductive housing of an implantable pulse generator as a reference electrode in the method of the combination of Struble et al. and Joseph for synchronous pacing

of the right and left ventricles during the electrical stimulus emitting and evoked response sensing phases, as taught by Callaghan et al.

Claims 55, 56, 69 and 70 are rejected under 35 U.S.C. 103(a) as being unpatentable over Alt et al. in view of Thong et al.

Alt et al. disclose a first ventricular defibrillation electrode 70 and a distal pacing/sensing electrode 67 at apex 69 of the right ventricular region on a pacing lead 66 (Figure 4, col. 9, lines 59-67 and col. 10, lines 1-7).

Alt et al. do not disclose delivering a pacing pulse from electrode 70 as a cathode to electrode 67 as an anode.

Thong et al. teach a ventricular bipolar lead 12 having cathodic and anodic electrodes for bipolar stimulation in the right ventricle (col. 5, lines 3-4).

Accordingly it would have been obvious to one of ordinary skill in the art at the time the invention was made to have provided electrode 70 as a cathode and electrode 67 as an anode as taught by Thong et al. for bipolar cardiac stimulation in the right ventricle.

The method steps of claims 55, 56, 69 and 70 are rendered obvious by the above discussion.

Claim 67 is rejected under 35 U.S.C. 103(a) as being unpatentable over Struble et al. in view of Callaghan et al.

Struble et al. do not disclose a pacing pulse between the first electrode and the conductive housing of an implantable pulse generator.

Callaghan et al. teach the use of the conductive housing of an implantable pulse generator as a reference electrode during the electrical stimulus emitting and evoked response sensing phases (col. 2, lines 34-59).

Accordingly it would have been obvious to one of ordinary skill in the art at the time of the invention to provide the conductive housing of an implantable pulse generator as a reference electrode in the method of Struble et al. for synchronous pacing of the right and left ventricles during the electrical stimulus emitting and evoked response sensing phases, as taught by Callaghan et al.

Claim 68 is rejected under 35 U.S.C. 103(a) as being unpatentable over Struble et al. in view of Callaghan et al. , as applied to claim 67, further in view of Joseph.

Struble et al. do not disclose a third electrode in the left ventricular region.

Joseph teaches connection of a pacemaker by two electrodes to the same part of the heart, namely two ventricular electrodes where in the event of failure of one electrode, the second could be used without surgical intervention (col. 4, lines 60-68 and col. 5, lines 1-18).

Accordingly it would have been obvious to one of ordinary skill in the art at the time of the invention to provide a second left ventricular electrode in the method of the combination of Struble et al. and Callaghan et al. so that in the event of failure of the first left ventricular electrode, the second left ventricular electrode can be used as a backup, as taught by Joseph.

Allowable Subject Matter

Claims 51-53 and 61-62 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.


Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Anu Ramana whose telephone number is (703) 306-4035. The examiner can normally be reached Monday through Friday between 8:30 am and 4:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kevin Shaver can be reached at (703) 308-2582. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 308-2708 for regular communications and (703) 308-2708 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0858.

AR
April 7, 2003


KEVIN SHAVER
SUPERVISORY PATENT EXAMINER
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